

REMARKS

The Applicants request reconsideration of the rejection.

Claims 1-20 remain pending.

The Examiner objected to the title as being non-descriptive. The Applicants have adopted the Examiner's suggestion for a new title.

Claims 1-3 and 10-20 were rejected under 35 U.S.C. 103(a) as being unpatentable over Wollrath et al., U.S. 6,519,614 (Wollrath) in view of Tremaine, U.S. 6,851,030 (Tremaine). The Applicants traverse as follows.

The claims have been amended to provide added clarity to the expression of the invention. However, the Applicants note that neither Wollrath nor Tremaine discloses or fairly suggests certain features of the invention, set forth in both the original claims and in the amended claims.

For example, referring to method Claim 1, the invention includes an area assigning method in a storage management system for managing a storage device for storing data. According to the method, and pursuant to an assignment request for temporarily using an area of the storage device in association with the designation of an area size and a using period, the size of a constantly-assigned area of the storage device previously requested is calculated by referring to

history information previously held. Then, the method determines, based on the calculated size of the constantly-assigned area and on the designated area size, whether or not there is sufficient storage device capacity for the constantly-assigned area and for the area of the storage device requested for temporary use, for the using period which is requested for assignment. When the area of the storage device can be assigned as a result of the determination, the method assigns the area size designated by the request, the using period, and the area of the storage device having the area size.

In rejecting Claim 1, the Office Action refers to Wollrath as disclosing steps of receiving an assignment request for temporarily using an area in association with designation of an area size and a using period; determining whether or not the requested area can be assigned at the requested using period; and assigning a size designated by the request, the using period, and the area when the area can be assigned as a result of the determination. The Office Action refers to Column 4, line 63 through Column 5, line 2.

Respectfully, however, the passage bridging Columns 4 and 5 simply summarizes a method that includes steps of receiving a caller's request specifying a storage location and a lease

period, determining the lease period during which the caller has access to specified storage locations, advising the caller of the granted lease period, and permitting the caller to access storage locations for the determined lease period. Thus, the passage does not disclose any determination of whether a requested area can be assigned based on information of the used amount of the storage. Referring to the amended language of Claim 1, Wollrath does not disclose "pursuant to an assignment request for temporarily using an area of the storage device in association with designation of an area size and a using period, calculating the size of a constantly-assigned area of the storage device previously requested, by referring to the history information; determining, based on the calculated size of the constantly-assigned area and on the designated area size, whether or not there is sufficient storage device capacity for the constantly-assigned area and for the area of the storage device requested for temporary use, for the using period which is requested for assignment; and assigning the area size designated by the request, the using period, and the area of the storage device having the area size, when the area of the storage device can be assigned as a result of the determination."

Of note is that Wollrath does not disclose the use of history information indicating an already assigned area (e.g., a "constantly-assigned area previously requested"), so as to calculate the size of the constantly-assigned area and determine whether or not there is sufficient storage device capacity for the requested area to be assigned, based on the already-existing and -allocated size of the constantly-assigned area and the designated area size of the requested area.

The Applicants note that the secondary reference to Tremaine is cited against this feature of the invention. However, Tremaine is directed to a system and method for dynamically allocating associative resources in which agents that fail to meet minimum use criteria are forced to relinquish logically allocated resources to high demand agents. On the other hand, the claimed method requires assigning area size with a preference to constantly-assigned space already requested and assigned. That is, the combination of Wollrath and Tremaine teaches the person of ordinary skill that a subsequent request for temporary access causes a constantly-assigned area to be reassigned to accommodate a new temporary request of higher demand. This is

not in accord with the invention as claimed in amended Claim 1.

Dependent claim 2 further limits claim 1 by obtaining a necessary area size and a necessary using period upon executing processing for temporarily using the storage, requesting assignment of the area which is temporarily used for storage management, and executing processing by using the area assigned for the storage management and requesting release of the assigned area after completing the processing. The combination of Wollrath and Tremaine fails to disclose that the method requests release of the assigned area after completing the processing for temporarily using the storage.

Dependent claim 3 introduces the limitation of reediting, as a work area, the area assigned for the storage management. The Office Action suggests that, because Wollrath "encompasses any kind of program requesting memory resources to a memory manager, ... Wollrath discloses memory allocation/deallocation for 'database reediting processing,'" and thus claim 3 is unpatentable. Respectfully, Wollrath cannot be said, as a premise, to encompass any kind of program requesting memory resources to a memory manager. The rejection requires support in the patent for such a broad statement. Furthermore, the conclusion that the claimed reediting processing is disclosed

because Wollrath notes a program requesting memory resources to a memory manager, is simply not logical. Certainly, there is no positive teaching for the person of ordinary skill to apply reediting processing to the disclosure of Wollrath. Moreover, Tremaine adds nothing regarding reediting processing, and thus the rejection fails.

Independent claim 10 is directed to a reediting processing method, including some steps similar to those argued above with respect to claim 1. Note, however, the steps of obtaining a size of a work area necessary for reediting and an execution time of the reediting processing upon executing the reediting processing of a database by a database management system, and setting, as the work area, the area assigned by the storage management system and executing the reediting of the database using the work area. By these steps, the advantages of assigning a temporary area based on history information are applied specifically to the reediting processing.

Independent claims 12 and 14 recite further methods that include patentable steps of determining and assigning an area of storage based on history information, in terms of varying scope from those discussed above. Independent system claim 17 recites various means for carrying out functions similar to

the method steps of claim 1. Thus, each of these independent claims also patentably defines over the prior art represented by Wollrath and Tremaine.

Claims 4-9 were rejected under 35 U.S.C. §103(a) as being unpatentable over Wollrath in view of Tremaine and Sankaranarayan, et al., US 6,799,208 (Sankaranarayan).

Dependent claim 4 requires the size of the constantly-assigned area to be calculated based on an area reservation state and the history information, such that in the determining step, it is determined whether or not a designated area can be assigned at a designated period from a designated time in accordance with the calculated size of the constantly-assigned area, and in the area assigning step, when a request is received for assigning a reserved area at a requested time, the designated period and the reserved area are assigned for the request source. Sankaranarayan's scheduler 2104 indeed schedules allocation of a set of resources at a later time, but "The scheduler 2104 is configured to run 'what if' scenarios to determine whether resources controlled by the stateless resource providers 2102 will be available at selected times. For example, suppose the scheduler 2104 mocks up one or more configurations of resources that are representative of system usage at a prime time, such as 8:00

PM. The scheduler 2104 then asks the resource providers 2102 whether they could allocate resources to these configurations. Since the providers have no concept of time and the state data on which they have to base their decisions is handed to them by the resource manager, they simply indicate whether they could meet such a collection of configurations." (emphasis added)

Thus, the Applicants submit that Sankaranarayan, whether taken individually or in combination with Wollrath and Tremaine, fails to suggest that "in the step of calculating the size of the constantly-assigned area, when the storage management system receives a request for an assignment reservation for temporarily using the area in association with the designation of a using time, the area size, and the using period, the size of the constantly-assigned area is calculated based on an area reservation state and the history information," or that "in the determining step, it is determined whether or not a designated area can be assigned at a designated period from a designated time in accordance with the calculated size of the constantly-assigned area," or that "in the area assigning step, when a request is received for assigning a reserved area at a requested time, the designated period and the reserved area are assigned for the request



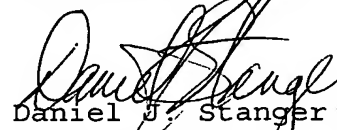
source," because the resource request is determined according to configuration and not time.

Claim 6 requires that the reediting processing be carried out by a database management system. None of Wollrath, Tremaine, or Sankaranarayan discloses the claimed reediting processing, however, and thus their combination does not render obvious the reediting processing being performed by a database management system.

The other dependent claims that were not discussed specifically above have separate patentability, in addition to their patentable features inherited from their respective independent claims and any intervening claims. However, for brevity, the other dependent claims will not be discussed further in this paper.

In view of the foregoing amendments and remarks, the Applicants respectfully request reconsideration of the rejection and allowance of the claims.

Respectfully submitted,



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